

***Plagiobothrys glomeratus* A. Gray (1885) ALTERED ANDESITE POPCORNFLOWER**

FAMILY: *Boraginaceae*, the forget-me-not family.

STATUS: **Heritage Program SENSITIVE LIST, ranks: G2G3 S2S3**

USFWS/ESA: none. **STATE OF NEVADA:** none. **BLM:** none. **USFS:** none. **NNNPS:** watch list.

POPULATION CENSUS: **9 occurrences mapped** at 1.0 km (0.6 mi) separation, OR **11 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals unknown**, total estimated **area unknown**. **TREND:** DECLINING.

IMPACTS AND MAJOR THREATS: Subject to urbanization impacts in the Reno area.

INVENTORY EFFORT: Surveys spotty and incomplete. Most recent entered survey 1999, average year of last survey 1988. **Years since last entered survey** (percent of mapped records at various survey ages): **0-5 yrs:** 90.9%; **51+ yrs or unknown:** 9.1%.

LAND MANAGEMENT in decreasing predominance: private lands, U. S. Bureau of Land Management, county lands, Humboldt-Toiyabe National Forest (?).

RANGE: Storey and Washoe counties, Nevada. **Nevada endemic.** Maximum **range dimension 37.2 km (23.1 mi)** excluding most disjunct record. **Type specimen** collected in Storey County.

ELEVATIONS RECORDED: 4850-6650 feet (1478-2027 meters).

HABITAT: Dry, shallow, mostly acidic (pH 3.3-5.5) gravelly clay soils mainly of the Smallcone Series, derived from weathering of hydrothermal sulfide deposits formed in andesite, or sometimes in rhyolitic or granitoid rocks, forming mostly barren yellowish to orange brown patches on ridges, knolls, and steep slopes on all aspects in sagebrush, pinyon-juniper, and montane conifer zones, on all but the most xeric sites supporting a sparse, stunted relict woodland of yellow pines (*Pinus ponderosa* and/or *P. jeffreyi*) and pinyon pine (*P. monophylla*), with an equally sparse understory codominated by *Eriogonum robustum*, *Arenaria nuttallii fragilis*, *Ericameria parryi* or *E. nauseosa*, *Elymus elymoides*, and/or *Poa secunda*.

PHENOLOGY: flowering summer. Range of most frequent **survey months:** June-July.

LIFE-FORM AND HABIT: small annual.

DESCRIPTION: An annual herb, 5-20 cm tall, with hairy leaves and stems and a bushy appearance. Compact clusters of small white flowers bloom June-August. **Distinguishing features:** Can be mistaken for *Plagiobothrys hispidus*. *P. glomeratus* has smooth nutlets while *P. hispidus* has nutlets unevenly tuberculate to pavemented with the roughness always readily discernable.

PHOTOGRAPHS: none known.

ILLUSTRATIONS: Cronquist et al. (1984).

OTHER GENERAL REFERENCES (listed separately): Skinner and Pavlik (1994).

SPECIFIC REFERENCES:

Gray, A. 1885. Contributions to the botany of North America. Proceedings of the American Academy of Arts 20: 257-310.

Morefield, J. D. 2000. Current knowledge and conservation status of *Eriogonum robustum* E. Greene (Polygonaceae), the altered andesite buckwheat. Carson City: Nevada Natural Heritage Program, status report prepared for the U. S. Fish and Wildlife Service, Reno, Nevada.

Tiehm, A. and W. A. Kelley. 1999. The history, identity, and distribution of *Plagiobothrys glomeratus* A. Gray (*Boraginaceae*). Carson City: unpublished manuscript in Nevada Natural Heritage Program files.

OF FURTHER INTEREST: Recognized by A. Tiehm (unpublished data) as a Nevada endemic more or less co-distributed with *Eriogonum robustum*, and previously confused with *Plagiobothrys hispidus* in California. Greene (1887), Johnston (1923), and Tidestrom (1925) placed *P. glomeratus* along with *hispidus*, *jonesii*, and *kingii* in the genus *Sonnea*. Cronquist (1984) recognized *P. glomeratus* as a good species.
